



Oregon

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February 13, 2023

Bob Wyatt
NW Natural
220 NW 2nd Avenue
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via electronic delivery (email)

**Re: DEQ Approval of the Feasibility Study Comprehensive Data Gaps Work Plan
Former Gasco Manufactured Gas Plant Operable Unit
Portland, Oregon
ECSI# 84
ECSI# 183**

Dear Mr. Wyatt:

The Oregon Department of Environmental Quality (DEQ) reviewed the *Feasibility Study Comprehensive Data Gaps Work Plan DEQ Comment and Response Matrix*¹ (DGWP RTCs), including revised/supplemental tables and figures for the *Feasibility Study Comprehensive Data Gaps Work Plan*² (DGWP), prepared by Anchor QEA, LLC on behalf of NW Natural for the Former Gasco Manufactured Gas Plant Operable Unit (Gasco OU) dated January 25, 2023. The DGWP and DGWP RTCs were prepared under the Voluntary Agreement for Remedial Investigation/Feasibility Study (DEQ No. WMCVC-NWR-94-13), as amended^{3,4,5}.

The Draft DGWP was submitted to DEQ on September 13, 2022, and described sampling of environmental media in the Siltronic Geographic Subarea (GSA) of the Gasco OU and Fill water bearing zone (WBZ) monitoring well pumping tests in the Gasco OU. The Draft DGWP was prepared in response to DEQ April 11, 2022 comments⁶ to the *Draft Remedial Investigation/Human Health and Ecological Risk Assessment Addendum for the Siltronic GSA*⁷ (RI/HERA Addendum). Our comments on the RI/HERA Addendum identified chlorinated herbicides and pesticides, polychlorinated biphenyls (PCBs), and dioxins/furans as contaminants with limited data within the Remedial Investigation (RI) and Human Health and Ecological Risk Assessment (HERA) datasets for fill soil and Fill WBZ groundwater on the Siltronic GSA. Our comments also requested additional data density for the southern portion of the

¹ Anchor QEA, LLC. 2023. Feasibility Study Comprehensive Data Gaps Work Plan DEQ Comment and Response Matrix. Gasco OU. Prepared for NW Natural. January 25.

² Anchor QEA, LLC. 2022. Feasibility Study Comprehensive Data Gaps Work Plan. Gasco OU. Prepared for NW Natural. September 13 (Revised/Supplemental Tables and Figures provided January 25, 2023).

³ DEQ. 1994. Voluntary Agreement for Remedial Investigation/Feasibility Study. DEQ No. WMCVC-NWR-94-13. August 8.

⁴ DEQ. 2006. First Addendum to Voluntary Agreement for Remedial Investigation/Feasibility Study. DEQ No. WMCVC-NWR-94-13. July 19.

⁵ DEQ. 2016. Second Addendum to Voluntary Agreement for Remedial Investigation/Feasibility Study. DEQ No. WMCVC-NWR-94-13. October 11.

⁶ DEQ. 2022. Draft Remedial Investigation and Human Health and Ecological Risk Assessment Addendum – Siltronic Geographical Subarea, Former Gasco Manufactured Gas Plant Operable Unit, Portland, Oregon, ECSI #84. April 11.

⁷ Anchor QEA, LLC and Hahn and Associates, Inc. 2019. Remedial Investigation/Human Health and Ecological Risk Assessment Addendum for the Siltronic GSA. Gasco OU. Prepared for NW Natural. November 22.

Siltronic GSA to improve the understanding of the nature and extent of contamination in this portion of the Gasco OU.

On November 15, 2022, DEQ provided comments⁸ on the Draft DGWP to NW Natural identifying the need to expand the number of proposed sampling locations and requesting additional supporting information. Our Draft DGWP comments provided an option to resolve our comments in a RTC matrix as an alternative to revising the Draft DGWP. DEQ met with Anchor QEA, LLC on December 15, 2022 and January 6, 2023 to discuss resolution of our comments and inform preparation of the DGWP RTC. The DGWP RTC includes a complete set of DGWP tables and figures, some of which were revised to address our comments, and also includes supplemental tables that provide information to support comment resolution.

DEQ conditionally approves the scope of work described in the DGWP, as amended by the DGWP RTCs, with the following comments and clarifications. Consistent with our November 15, 2022 comments, DEQ does not require NW Natural to revise the Draft DGWP.

General Comments

- 1) **DEQ's Reply to NW Natural's response to DEQ General Comment #1:** NW Natural's response states that a) NW Natural does not agree that detections of data gap COIs exceeding applicable RBCs in the fill or Fill WBZ would necessarily require additional evaluation of data from the Upper Alluvium WBZ; b) the applicable risk pathways and RBCs for the Upper Alluvium WBZ differ from those for the Fill WBZ; c) there are no human health risk pathways associated with the Upper Alluvium; and d) that remaining data gaps associated with the 'data gap' COIs will be addressed in the pre-remedial design/remedial design phases. DEQ offers the following clarifications to these statements:
 - a) If data gap COIs exceed applicable RBCs in the fill or Fill WBZ, DEQ will require that NW Natural use existing DEQ-approved soil and groundwater data from the Upper Alluvium WBZ to evaluate the potential for vertical migration of these data gap COIs at RBCs applicable to risk scenarios for the Upper Alluvium WBZ. We note that Siltronic-collected soil and groundwater data from the Upper Alluvium WBZ has already been approved by DEQ for this purpose.
 - b) While the applicable direct contact human health exposure pathways may be different, both the Fill WBZ and Alluvium WBZ have complete ecological risk pathways to the Willamette River.
 - c) As noted by DEQ during our February 8, 2023 meeting to discuss human health preliminary remediation goals (PRGs), there is a human health occupational use scenario for the Lower Alluvium WBZ, and that the Upper and Lower Alluvium WBZs are in direct hydraulic communication. The Gasco OU Feasibility Study will need to evaluate the potential for contaminants in the Upper Alluvium to migrate to the Lower Alluvium as a result of occupational use of the Lower Alluvium WBZ. DEQ also notes that both the Fill WBZ and Upper Alluvium WBZ are subject to ROD Table 17 cleanup levels, some of which are based on human health exposure scenarios.
 - d) DEQ reserves the ability to require NW Natural to fill data gaps necessary for completing the Gasco Feasibility Study, if any. DEQ agrees to discuss resolution of remaining data gaps, if any,

⁸ DEQ. 2022. DEQ Comments on the Feasibility Study Comprehensive Data Gaps Work Plan, Former Gasco Manufactured Gas Plant Operable Unit, Portland, Oregon, ECSI #84, ECSI #183. November 15.

with NW Natural after completion of the of the scope of work described in the DGWP, as revised by the DGWP RTCs and this letter, review of the data gap investigation results, and evaluation of the existing DEQ approved Siltronic-collected data. One goal of DEQ's discussions with NW Natural will be to determine whether data gaps must be filled in advance of the Gasco OU Feasibility Study, or if they can be filled during the pre-remedial design/remedial design project phase.

- 2) **DEQ's Reply to NW Natural's response to DEQ General Comment #3:** DEQ's request that future tables used to identify COCs across media and geographical subareas clearly distinguish between contaminants that have not been analyzed for in a given medium and contaminants that have been analyzed for and determined to not be a COC applies to the Gasco OU Feasibility Study.
- 3) **DEQ's Reply to NW Natural's response to DEQ General Comment #4:** NW Natural's response clarifies that the proposed analyte list for each media is provided in revised Tables 6 through 8, and that the proposed analytes do not include all COCs identified in Table 1 of DEQ's May 22, 2015 letter⁹ approving and revising the Gasco HERA. In addition to Table 1 of DEQ's May 22, 2015 letter, DEQ previously communicated the list of Gasco OU COCs to be evaluated in the Gasco OU Feasibility Study to NW Natural in a June 15, 2018 email¹⁰. NW Natural's response does not adequately justify excluding Gasco OU COCs from the proposed DGWP analyte lists. Based on our review of Tables 6 through 8, NW Natural excluded the following Gasco OU COCs from the proposed DGWP analyte lists: 3,3'-dichlorobenzidine, ammonia, benzoic acid, hexachlorobutadiene (hexachloro-1,3-butadiene), magnesium, sulfate, and thiocyanate. Of the excluded COCs, Siltronic-collected data approved by DEQ includes soil and groundwater data for 3,3'-Dichlorobenzidine, benzoic acid and Hexachlorobutadiene (Hexachloro-1,3-butadiene), and groundwater data for sulfate. DEQ requires that NW Natural add analysis for the missing Gasco OU FS for soils samples proposed in the DGWP. DEQ notes that these analytes were included in the scope of Feasibility Study Data Gaps sampling on the Gasco Site.
- 4) **DEQ's Reply to NW Natural's response to DEQ General Comment #5:** In the absence of free cyanide data in Gasco OU soils, the Gasco OU Feasibility Study will need to develop a conservative basis for estimating the contribution of cyanide from MGP residuals at concentrations that exceed applicable RBCs in groundwater and ensure that remedial action alternatives will effectively address ongoing leaching of cyanide from MGP residuals to groundwater. DEQ will allow NW Natural to further evaluate ongoing leaching of cyanide from MGP residuals during remedial design in order to refine conservative assumptions made in the Gasco OU Feasibility Study.

Please do not hesitate to contact me at (503) 229-6932 or Wesley.Thomas@deq.oregon.gov if you have any questions regarding this letter.

⁹ DEQ. 2015. Revised Human Health and Ecological Risk Assessment Report, NW Natural "Gasco Site," Portland, Oregon, ECSI No. 84. May 22.

¹⁰ DEQ. 2018. Email to Taku Fuji (Anchor QEA, LLC). Re: Draft Gasco Operable Unit Risk Assessment Addendum Interim Deliverables Package - DEQ Requested Information. June 15.

Sincerely,



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CC: ECSI No. 84 File
ECSI No. 183 File